

**AMENDMENTS TO THE CLAIMS**

**Claim Amendments**

1-15. (Canceled)

16. (Withdrawn) An isolated prothrombin activator protease comprising the amino acid sequence set forth in SEQ ID NO: 3.

17. (Currently Amended) A method for ~~treating~~preventing prothrombotic disorders in an individual in need thereof comprising administering to said individual an effective dose of a prothrombin activator protease comprising at least one amino acid sequence selected from the group consisting of SEQ ID ~~NOS:NOS~~: 1, 2, 3, 4 and 5, wherein said effective dose ~~prevent blood clot formation~~removes fibrinogen from circulation.

18. (Withdrawn, Currently Amended) A method for detecting the presence of prothrombin in the plasma of a patient comprising:

- obtaining plasma from said patient;  
- treating said plasma with a prothrombin activator protease comprising at least one amino acid sequence selected from the group consisting of SEQ ID ~~NOS:NOS~~: 1, 2, 3, 4 and 5;  
- assaying for thrombin activity in said treated plasma; and  
- detecting by the thrombin formation the presence of prothrombin in the plasma of said patient.

19. (Withdrawn) The method of claim 18, wherein said patient suffers from coagulopathy disorders.

20. (New) A method for reducing fibrinogen from the blood, thereby preventing acute vascular thrombosis in a patient comprising administering to a patient a prothrombin

activator comprising the amino acid sequences set forth in SEQ ID NOs: 1, 2, 3, 4, and 5 wherein said prothrombin activator reduces fibrinogen in circulation.

21. (New) The method of claim 20, wherein said prothrombin activator is administered at an effective dose equal to or lower than 100  $\mu\text{g}/\text{kg}$ .

22. (New) The method of claim 21, wherein said prothrombin activator is obtained from *L. obliqua*.

23. (New) A method for preventing a prothrombotic state in a patient comprising administering to said patient controlled doses of a prothrombin activator comprising the amino acid sequences set forth in SEQ ID NOs: 1, 2, 3, 4, and 5 wherein said administration removes, in a controlled way, fibrinogen from the blood of said patient preventing clot formation.

24. (New) The method of claim 23 wherein said prothrombotic state patient has disseminated intravascular coagulopathy leading to a consumption coagulopathy.

25. (New) A method for treating prothrombotic disorders in an individual in need thereof comprising administering to said individual an effective dose of a prothrombin activator protease comprising at least one amino acid sequence selected from the group consisting of SEQ ID NOs: 1, 2, 3, 4 and 5, wherein said effective dose removes fibrinogen from circulation.

26. (New) A method for reducing fibrinogen from the blood, comprising administering to a patient a prothrombin activator comprising the amino acid sequences set forth in SEQ ID NOs: 1, 2, 3, 4, and 5 wherein said prothrombin activator reduces fibrinogen in circulation.